

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

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North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-56464-2

Client Project/Site: Grenada Manufacturing

For:

ARCADIS U.S., Inc.

10352 Plaza Americana Dr.

Baton Rouge, Louisiana 70816

Attn: Mr. John Ellis

Denise Pohl

Authorized for release by:

10/26/2015 8:36:21 AM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation

These commonly used abbreviations may or may not be present in this report.

□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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Case Narrative

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Job ID: 240-56464-2

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Grenada Manufacturing

Report Number: 240-56464-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 10/10/2015 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 7 coolers at receipt time were 0.1° C, 0.7° C, 0.9° C, 1.7° C, 1.9° C, 2.1° C and 3.7° C.

TCLP VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples DRUM SOIL CUTTING (240-56464-33) and DRUM DECON/PURGE WATER (240-56464-34) were analyzed for TCLP volatile organic compounds (GCMS) in accordance with EPA SW-846 Methods 1311/8260B. The samples were leached on 10/11/2015 and 10/14/2015 and analyzed on 10/14/2015 and 10/15/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples DRUM SOIL CUTTING (240-56464-33) and DRUM DECON/PURGE WATER (240-56464-34) were analyzed for TCLP semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Methods 1311/8270C. The samples were leached on 10/12/2015 and 10/15/2015, prepared on 10/13/2015 and 10/16/2015 and analyzed on 10/15/2015 and 10/19/2015.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Case Narrative

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Job ID: 240-56464-2 (Continued)

Laboratory: TestAmerica Canton (Continued)

Method(s) 8270C: The continuing calibration verification (CCV) associated with batch 202478 recovered above the upper control limit for Pentachlorophenol. The samples associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported. The following sample is impacted: DRUM SOIL CUTTING (240-56464-33).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP METALS (ICP)

Samples DRUM SOIL CUTTING (240-56464-33) and DRUM DECON/PURGE WATER (240-56464-34) were analyzed for TCLP metals (ICP) in accordance with EPA SW-846 Methods 1311/6010B. The samples were leached on 10/12/2015 and 10/15/2015, prepared on 10/13/2015 and 10/16/2015 and analyzed on 10/14/2015 and 10/19/2015.

Chromium was detected in method blank LB 240-201518/1-B at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Arsenic and Chromium were detected in method blank LB 240-202152/1-B at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Silver was detected in method blank MB 240-202258/2-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP MERCURY

Samples DRUM SOIL CUTTING (240-56464-33) and DRUM DECON/PURGE WATER (240-56464-34) were analyzed for TCLP mercury in accordance with EPA SW-846 Methods 1311/7470A. The samples were leached on 10/12/2015 and 10/15/2015, prepared on 10/13/2015 and 10/16/2015 and analyzed on 10/14/2015 and 10/21/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FLASHPOINT

Sample DRUM SOIL CUTTING (240-56464-33) was analyzed for flashpoint in accordance with EPA SW-846 Method 1010. The samples were analyzed on 10/14/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FLASHPOINT

Sample DRUM DECON/PURGE WATER (240-56464-34) was analyzed for flashpoint in accordance with EPA SW-846 Method 1010. The samples were analyzed on 10/14/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PH

Sample DRUM DECON/PURGE WATER (240-56464-34) was analyzed for pH in accordance with EPA SW-846 Method 9040C. The samples were analyzed on 10/10/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PH

Sample DRUM SOIL CUTTING (240-56464-33) was analyzed for pH in accordance with EPA SW-846 Method 9045C. The samples were analyzed on 10/13/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
6010B	Metals (ICP)	SW846	TAL CAN
7470A	Mercury (CVAA)	SW846	TAL CAN
1010	Ignitability, Pensky-Martens Closed-Cup Method	SW846	TAL CAN
9040C	pH	SW846	TAL CAN
9045C	pH	SW846	TAL CAN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-56464-33	DRUM SOIL CUTTING	Solid	10/09/15 13:15	10/10/15 09:45
240-56464-34	DRUM DECON/PURGE WATER	Water	10/09/15 13:25	10/10/15 09:45

TestAmerica Canton

Detection Summary

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Client Sample ID: DRUM SOIL CUTTING

Lab Sample ID: 240-56464-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0060	J B	0.50	0.0029	mg/L	1		6010B	TCLP
Barium	0.78	J	10	0.0010	mg/L	1		6010B	TCLP
Cadmium	0.00014	J	0.10	0.00014	mg/L	1		6010B	TCLP
Chromium	0.0029	J B	0.50	0.00055	mg/L	1		6010B	TCLP
Lead	0.0054	J	0.50	0.0019	mg/L	1		6010B	TCLP
Flashpoint	>200		1.00	1.00	Degrees F	1		1010	Total/NA
Corrosivity	7.34		0.100	0.100	SU	1		9045C	Total/NA
pH	7.34		0.100	0.100	SU	1		9045C	Total/NA

Client Sample ID: DRUM DECON/PURGE WATER

Lab Sample ID: 240-56464-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0062	J	0.50	0.0029	mg/L	1		6010B	TCLP
Barium	0.0094	J	10	0.0010	mg/L	1		6010B	TCLP
Cadmium	0.00025	J	0.10	0.00014	mg/L	1		6010B	TCLP
Chromium	0.020	J B	0.50	0.00055	mg/L	1		6010B	TCLP
Flashpoint	>200		1.00	1.00	Degrees F	1		1010	Total/NA
Corrosivity	10.3		0.100	0.100	SU	1		9040C	Total/NA
pH	10.3		0.100	0.100	SU	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Client Sample ID: DRUM SOIL CUTTING

Lab Sample ID: 240-56464-33

Matrix: Solid

Date Collected: 10/09/15 13:15

Date Received: 10/10/15 09:45

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.025	U	0.025	0.0065	mg/L			10/15/15 23:35	1
2-Butanone (MEK)	0.25	U	0.25	0.029	mg/L			10/15/15 23:35	1
Carbon tetrachloride	0.025	U	0.025	0.0065	mg/L			10/15/15 23:35	1
Chlorobenzene	0.025	U	0.025	0.0075	mg/L			10/15/15 23:35	1
Chloroform	0.025	U	0.025	0.0080	mg/L			10/15/15 23:35	1
1,2-Dichloroethane	0.025	U	0.025	0.011	mg/L			10/15/15 23:35	1
1,1-Dichloroethene	0.025	U	0.025	0.0095	mg/L			10/15/15 23:35	1
Tetrachloroethylene	0.025	U	0.025	0.015	mg/L			10/15/15 23:35	1
Trichloroethylene	0.025	U	0.025	0.0085	mg/L			10/15/15 23:35	1
Vinyl chloride	0.025	U	0.025	0.011	mg/L			10/15/15 23:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		70 - 124					10/15/15 23:35	1
Dibromofluoromethane (Surr)	91		80 - 128					10/15/15 23:35	1
1,2-Dichloroethane-d4 (Surr)	92		80 - 121					10/15/15 23:35	1
Toluene-d8 (Surr)	92		80 - 120					10/15/15 23:35	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
1,4-Dichlorobenzene	0.0040	U	0.0040	0.00034	mg/L		10/16/15 12:04	10/19/15 14:19	1	
2,4-Dinitrotoluene	0.0040	U	0.0040	0.00025	mg/L		10/16/15 12:04	10/19/15 14:19	1	
Hexachlorobenzene	0.00080	U	0.00080	0.000085	mg/L		10/16/15 12:04	10/19/15 14:19	1	
Hexachlorobutadiene	0.0040	U	0.0040	0.00027	mg/L		10/16/15 12:04	10/19/15 14:19	1	
Hexachloroethane	0.0040	U	0.0040	0.00019	mg/L		10/16/15 12:04	10/19/15 14:19	1	
2-Methylphenol	0.0040	U	0.0040	0.00017	mg/L		10/16/15 12:04	10/19/15 14:19	1	
3 & 4 Methylphenol	0.0040	U	0.0040	0.00080	mg/L		10/16/15 12:04	10/19/15 14:19	1	
Nitrobenzene	0.0040	U	0.0040	0.000040	mg/L		10/16/15 12:04	10/19/15 14:19	1	
Pentachlorophenol	0.016	U	0.016	0.00027	mg/L		10/16/15 12:04	10/19/15 14:19	1	
Pyridine	0.0040	U	0.0040	0.00035	mg/L		10/16/15 12:04	10/19/15 14:19	1	
2,4,5-Trichlorophenol	0.0040	U	0.0040	0.00030	mg/L		10/16/15 12:04	10/19/15 14:19	1	
2,4,6-Trichlorophenol	0.0040	U	0.0040	0.00024	mg/L		10/16/15 12:04	10/19/15 14:19	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl (Surr)	72		30 - 110					10/16/15 12:04	10/19/15 14:19	1
2-Fluorophenol (Surr)	51		20 - 110					10/16/15 12:04	10/19/15 14:19	1
Nitrobenzene-d5 (Surr)	75		28 - 110					10/16/15 12:04	10/19/15 14:19	1
Phenol-d5 (Surr)	42		21 - 110					10/16/15 12:04	10/19/15 14:19	1
Terphenyl-d14 (Surr)	82		48 - 110					10/16/15 12:04	10/19/15 14:19	1
2,4,6-Tribromophenol (Surr)	58		23 - 110					10/16/15 12:04	10/19/15 14:19	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0060	J B	0.50	0.0029	mg/L		10/16/15 10:35	10/19/15 02:35	1
Barium	0.78	J	10	0.0010	mg/L		10/16/15 10:35	10/19/15 02:35	1
Cadmium	0.00014	J	0.10	0.00014	mg/L		10/16/15 10:35	10/19/15 02:35	1
Chromium	0.0029	J B	0.50	0.00055	mg/L		10/16/15 10:35	10/19/15 02:35	1
Lead	0.0054	J	0.50	0.0019	mg/L		10/16/15 10:35	10/19/15 02:35	1
Selenium	0.25	U	0.25	0.0040	mg/L		10/16/15 10:35	10/19/15 02:35	1
Silver	0.50	U	0.50	0.00092	mg/L		10/16/15 10:35	10/19/15 02:35	1

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Client Sample ID: DRUM SOIL CUTTING

Lab Sample ID: 240-56464-33

Date Collected: 10/09/15 13:15

Matrix: Solid

Date Received: 10/10/15 09:45

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020	0.000090	mg/L		10/16/15 14:00	10/21/15 17:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	>200		1.00	1.00	Degrees F		10/14/15 15:13		1
Corrosivity	7.34		0.100	0.100	SU		10/13/15 15:20		1
pH	7.34		0.100	0.100	SU		10/13/15 15:20		1

Client Sample Results

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Client Sample ID: DRUM DECON/PURGE WATER

Lab Sample ID: 240-56464-34

Matrix: Water

Date Collected: 10/09/15 13:25

Date Received: 10/10/15 09:45

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.025	U	0.025	0.0065	mg/L			10/14/15 03:45	1
2-Butanone (MEK)	0.25	U	0.25	0.029	mg/L			10/14/15 03:45	1
Carbon tetrachloride	0.025	U	0.025	0.0065	mg/L			10/14/15 03:45	1
Chlorobenzene	0.025	U	0.025	0.0075	mg/L			10/14/15 03:45	1
Chloroform	0.025	U	0.025	0.0080	mg/L			10/14/15 03:45	1
1,2-Dichloroethane	0.025	U	0.025	0.011	mg/L			10/14/15 03:45	1
1,1-Dichloroethene	0.025	U	0.025	0.0095	mg/L			10/14/15 03:45	1
Tetrachloroethylene	0.025	U	0.025	0.015	mg/L			10/14/15 03:45	1
Trichloroethylene	0.025	U	0.025	0.0085	mg/L			10/14/15 03:45	1
Vinyl chloride	0.025	U	0.025	0.011	mg/L			10/14/15 03:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 124					10/14/15 03:45	1
Dibromofluoromethane (Surr)	93		80 - 128					10/14/15 03:45	1
1,2-Dichloroethane-d4 (Surr)	90		80 - 121					10/14/15 03:45	1
Toluene-d8 (Surr)	96		80 - 120					10/14/15 03:45	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0040	U	0.0040	0.00034	mg/L		10/13/15 11:17	10/15/15 17:00	1
2,4-Dinitrotoluene	0.0040	U	0.0040	0.00025	mg/L		10/13/15 11:17	10/15/15 17:00	1
Hexachlorobenzene	0.00080	U	0.00080	0.000085	mg/L		10/13/15 11:17	10/15/15 17:00	1
Hexachlorobutadiene	0.0040	U	0.0040	0.00027	mg/L		10/13/15 11:17	10/15/15 17:00	1
Hexachloroethane	0.0040	U	0.0040	0.00019	mg/L		10/13/15 11:17	10/15/15 17:00	1
2-Methylphenol	0.0040	U	0.0040	0.00017	mg/L		10/13/15 11:17	10/15/15 17:00	1
3 & 4 Methylphenol	0.0040	U	0.0040	0.00080	mg/L		10/13/15 11:17	10/15/15 17:00	1
Nitrobenzene	0.0040	U	0.0040	0.000040	mg/L		10/13/15 11:17	10/15/15 17:00	1
Pentachlorophenol	0.016	U	0.016	0.00027	mg/L		10/13/15 11:17	10/15/15 17:00	1
Pyridine	0.0040	U	0.0040	0.00035	mg/L		10/13/15 11:17	10/15/15 17:00	1
2,4,5-Trichlorophenol	0.0040	U	0.0040	0.00030	mg/L		10/13/15 11:17	10/15/15 17:00	1
2,4,6-Trichlorophenol	0.0040	U	0.0040	0.00024	mg/L		10/13/15 11:17	10/15/15 17:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	53		30 - 110				10/13/15 11:17	10/15/15 17:00	1
2-Fluorophenol (Surr)	43		20 - 110				10/13/15 11:17	10/15/15 17:00	1
Nitrobenzene-d5 (Surr)	51		28 - 110				10/13/15 11:17	10/15/15 17:00	1
Phenol-d5 (Surr)	36		21 - 110				10/13/15 11:17	10/15/15 17:00	1
Terphenyl-d14 (Surr)	77		48 - 110				10/13/15 11:17	10/15/15 17:00	1
2,4,6-Tribromophenol (Surr)	52		23 - 110				10/13/15 11:17	10/15/15 17:00	1

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0062	J	0.50	0.0029	mg/L		10/13/15 11:43	10/14/15 16:54	1
Barium	0.0094	J	10	0.0010	mg/L		10/13/15 11:43	10/14/15 16:54	1
Cadmium	0.00025	J	0.10	0.00014	mg/L		10/13/15 11:43	10/14/15 16:54	1
Chromium	0.020	J B	0.50	0.00055	mg/L		10/13/15 11:43	10/14/15 16:54	1
Lead	0.50	U	0.50	0.0019	mg/L		10/13/15 11:43	10/14/15 16:54	1
Selenium	0.25	U	0.25	0.0040	mg/L		10/13/15 11:43	10/14/15 16:54	1
Silver	0.50	U	0.50	0.00092	mg/L		10/13/15 11:43	10/14/15 16:54	1

TestAmerica Canton

Client Sample Results

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Client Sample ID: DRUM DECON/PURGE WATER

Lab Sample ID: 240-56464-34

Matrix: Water

Date Collected: 10/09/15 13:25

Date Received: 10/10/15 09:45

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020	0.000090	mg/L		10/13/15 14:00	10/14/15 12:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	>200		1.00	1.00	Degrees F			10/14/15 10:20	1
Corrosivity	10.3		0.100	0.100	SU			10/10/15 11:45	1
pH	10.3		0.100	0.100	SU			10/10/15 11:45	1

Surrogate Summary

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (70-124)	DBFM (80-128)	12DCE (80-121)	TOL (80-120)
LCS 240-202139/9	Lab Control Sample	85	99	99	99

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (70-124)	DBFM (80-128)	12DCE (80-121)	TOL (80-120)
240-56464-33	DRUM SOIL CUTTING	78	91	92	92
LB 240-202030/1-A MB	Method Blank	86	92	87	91

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (70-124)	DBFM (80-128)	12DCE (80-121)	TOL (80-120)
LCS 240-201734/20	Lab Control Sample	82	105	98	96

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (70-124)	DBFM (80-128)	12DCE (80-121)	TOL (80-120)
240-56464-34	DRUM DECON/PURGE WATEF	87	93	90	96
LB 240-201379/1-A MB	Method Blank	86	94	91	96

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

TestAmerica Canton

Surrogate Summary

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (30-110)	2FP (20-110)	NBZ (28-110)	PHL (21-110)	TPH (48-110)	TBP (23-110)
LCS 240-202290/12-A	Lab Control Sample	74	70	80	61	81	84
MB 240-202290/11-A	Method Blank	72	71	73	62	83	78

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (30-110)	2FP (20-110)	NBZ (28-110)	PHL (21-110)	TPH (48-110)	TBP (23-110)
240-56464-33	DRUM SOIL CUTTING	72	51	75	42	82	58

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (30-110)	2FP (20-110)	NBZ (28-110)	PHL (21-110)	TPH (48-110)	TBP (23-110)
LCS 240-201625/18-A	Lab Control Sample	83	74	85	62	92	90
MB 240-201625/17-A	Method Blank	80	74	77	74	91	83

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)

Surrogate Summary

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (30-110)	2FP (20-110)	NBZ (28-110)	PHL (21-110)	TPH (48-110)	TBP (23-110)
240-56464-34	DRUM DECON/PURGE WATEF	53	43	51	36	77	52

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPH = Terphenyl-d14 (Surr)

TBP = 2,4,6-Tribromophenol (Surr)

QC Sample Results

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: LCS 240-201734/20

Matrix: Water

Analysis Batch: 201734

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.00	1.01		mg/L		101	80 - 120
2-Butanone (MEK)	2.00	1.81		mg/L		90	49 - 120
Carbon tetrachloride	1.00	0.951		mg/L		95	54 - 122
Chlorobenzene	1.00	0.958		mg/L		96	80 - 120
Chloroform	1.00	0.979		mg/L		98	80 - 123
1,2-Dichloroethane	1.00	1.02		mg/L		102	80 - 120
1,1-Dichloroethene	1.00	1.07		mg/L		107	71 - 133
Tetrachloroethene	1.00	0.942		mg/L		94	79 - 134
Trichloroethene	1.00	1.00		mg/L		100	78 - 130
Vinyl chloride	1.00	0.686		mg/L		69	56 - 120

Surrogate	LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	82		70 - 124
Dibromofluoromethane (Surr)	105		80 - 128
1,2-Dichloroethane-d4 (Surr)	98		80 - 121
Toluene-d8 (Surr)	96		80 - 120

Lab Sample ID: LCS 240-202139/9

Matrix: Solid

Analysis Batch: 202139

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.00	0.999		mg/L		100	80 - 120
2-Butanone (MEK)	2.00	1.76		mg/L		88	49 - 120
Carbon tetrachloride	1.00	1.20		mg/L		120	54 - 122
Chlorobenzene	1.00	0.982		mg/L		98	80 - 120
Chloroform	1.00	0.989		mg/L		99	80 - 123
1,2-Dichloroethane	1.00	1.01		mg/L		101	80 - 120
1,1-Dichloroethene	1.00	1.08		mg/L		108	71 - 133
Tetrachloroethene	1.00	0.987		mg/L		99	79 - 134
Trichloroethene	1.00	0.975		mg/L		97	78 - 130
Vinyl chloride	1.00	0.986		mg/L		99	56 - 120

Surrogate	LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	85		70 - 124
Dibromofluoromethane (Surr)	99		80 - 128
1,2-Dichloroethane-d4 (Surr)	99		80 - 121
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: LB 240-201379/1-A MB

Matrix: Water

Analysis Batch: 201734

Client Sample ID: Method Blank
Prep Type: TCLP

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	0.025	U	0.025	0.0065	mg/L			10/13/15 21:32	1
2-Butanone (MEK)	0.25	U	0.25	0.029	mg/L			10/13/15 21:32	1
Carbon tetrachloride	0.025	U	0.025	0.0065	mg/L			10/13/15 21:32	1

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB 240-201379/1-A MB

Matrix: Water

Analysis Batch: 201734

Client Sample ID: Method Blank

Prep Type: TCLP

Analyte	MB		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
	MB	MB										
Chlorobenzene	0.025	U	0.025		0.025	0.0075	mg/L			10/13/15 21:32	1	
Chloroform	0.025	U			0.025	0.0080	mg/L			10/13/15 21:32	1	
1,2-Dichloroethane	0.025	U			0.025	0.011	mg/L			10/13/15 21:32	1	
1,1-Dichloroethene	0.025	U			0.025	0.0095	mg/L			10/13/15 21:32	1	
Tetrachloroethene	0.025	U			0.025	0.015	mg/L			10/13/15 21:32	1	
Trichloroethene	0.025	U			0.025	0.0085	mg/L			10/13/15 21:32	1	
Vinyl chloride	0.025	U			0.025	0.011	mg/L			10/13/15 21:32	1	
Surrogate		MB		MB		%Recovery		Qualifier		Limits		
4-Bromofluorobenzene (Surr)			86			70 - 124					10/13/15 21:32	1
Dibromofluoromethane (Surr)			94			80 - 128					10/13/15 21:32	1
1,2-Dichloroethane-d4 (Surr)			91			80 - 121					10/13/15 21:32	1
Toluene-d8 (Surr)			96			80 - 120					10/13/15 21:32	1

Lab Sample ID: LB 240-202030/1-A MB

Matrix: Solid

Analysis Batch: 202139

Client Sample ID: Method Blank

Prep Type: TCLP

Analyte	MB		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
	MB	MB										
Benzene	0.025	U	0.025		0.025	0.0065	mg/L			10/15/15 19:48	1	
2-Butanone (MEK)	0.25	U	0.25		0.25	0.029	mg/L			10/15/15 19:48	1	
Carbon tetrachloride	0.025	U			0.025	0.0065	mg/L			10/15/15 19:48	1	
Chlorobenzene	0.025	U			0.025	0.0075	mg/L			10/15/15 19:48	1	
Chloroform	0.025	U			0.025	0.0080	mg/L			10/15/15 19:48	1	
1,2-Dichloroethane	0.025	U			0.025	0.011	mg/L			10/15/15 19:48	1	
1,1-Dichloroethene	0.025	U			0.025	0.0095	mg/L			10/15/15 19:48	1	
Tetrachloroethene	0.025	U			0.025	0.015	mg/L			10/15/15 19:48	1	
Trichloroethene	0.025	U			0.025	0.0085	mg/L			10/15/15 19:48	1	
Vinyl chloride	0.025	U			0.025	0.011	mg/L			10/15/15 19:48	1	
Surrogate		MB		MB		%Recovery		Qualifier		Limits		
4-Bromofluorobenzene (Surr)			86			70 - 124					10/15/15 19:48	1
Dibromofluoromethane (Surr)			92			80 - 128					10/15/15 19:48	1
1,2-Dichloroethane-d4 (Surr)			87			80 - 121					10/15/15 19:48	1
Toluene-d8 (Surr)			91			80 - 120					10/15/15 19:48	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-201625/17-A

Matrix: Water

Analysis Batch: 201807

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201625

Analyte	MB		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	MB	MB									
1,4-Dichlorobenzene	0.0040	U	0.0040		0.0040	0.00034	mg/L			10/13/15 11:17	1
2,4-Dinitrotoluene	0.0040	U	0.0040		0.0040	0.00025	mg/L			10/13/15 11:17	1
Hexachlorobenzene	0.00080	U	0.00080		0.00080	0.000085	mg/L			10/13/15 11:17	1
Hexachlorobutadiene	0.0040	U	0.0040		0.0040	0.00027	mg/L			10/13/15 11:17	1

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-201625/17-A

Matrix: Water

Analysis Batch: 201807

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201625

Analyte	MB		RL	MDL	Unit	D	Prepared		Dil Fac
	Result	Qualifier					Prepared	Analyzed	
Hexachloroethane	0.0040	U	0.0040	0.00019	mg/L		10/13/15 11:17	10/14/15 11:04	1
2-Methylphenol	0.0040	U	0.0040	0.00017	mg/L		10/13/15 11:17	10/14/15 11:04	1
3 & 4 Methylphenol	0.0040	U	0.0040	0.00080	mg/L		10/13/15 11:17	10/14/15 11:04	1
Nitrobenzene	0.0040	U	0.0040	0.000040	mg/L		10/13/15 11:17	10/14/15 11:04	1
Pentachlorophenol	0.016	U	0.016	0.00027	mg/L		10/13/15 11:17	10/14/15 11:04	1
Pyridine	0.0040	U	0.0040	0.00035	mg/L		10/13/15 11:17	10/14/15 11:04	1
2,4,5-Trichlorophenol	0.0040	U	0.0040	0.00030	mg/L		10/13/15 11:17	10/14/15 11:04	1
2,4,6-Trichlorophenol	0.0040	U	0.0040	0.00024	mg/L		10/13/15 11:17	10/14/15 11:04	1
Surrogate	MB		%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
	Spike	MB			Limits				
2-Fluorobiphenyl (Surr)	80		30 - 110				10/13/15 11:17	10/14/15 11:04	1
2-Fluorophenol (Surr)	74		20 - 110				10/13/15 11:17	10/14/15 11:04	1
Nitrobenzene-d5 (Surr)	77		28 - 110				10/13/15 11:17	10/14/15 11:04	1
Phenol-d5 (Surr)	74		21 - 110				10/13/15 11:17	10/14/15 11:04	1
Terphenyl-d14 (Surr)	91		48 - 110				10/13/15 11:17	10/14/15 11:04	1
2,4,6-Tribromophenol (Surr)	83		23 - 110				10/13/15 11:17	10/14/15 11:04	1

Lab Sample ID: LCS 240-201625/18-A

Matrix: Water

Analysis Batch: 201807

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 201625

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits	%Rec.
		Result	Qualifier					
1,4-Dichlorobenzene	0.0800	0.0626		mg/L		78	52 - 110	
2,4-Dinitrotoluene	0.0800	0.0710		mg/L		89	54 - 110	
Hexachlorobenzene	0.0800	0.0625		mg/L		78	50 - 110	
Hexachlorobutadiene	0.0800	0.0610		mg/L		76	34 - 110	
Hexachloroethane	0.0800	0.0627		mg/L		78	41 - 110	
2-Methylphenol	0.0800	0.0631		mg/L		79	44 - 111	
3 & 4 Methylphenol	0.0800	0.0615		mg/L		77	48 - 110	
Nitrobenzene	0.0800	0.0644		mg/L		81	40 - 110	
Pentachlorophenol	0.160	0.136		mg/L		85	12 - 110	
Pyridine	0.0800	0.0514		mg/L		64	30 - 110	
2,4,5-Trichlorophenol	0.0800	0.0662		mg/L		83	51 - 110	
2,4,6-Trichlorophenol	0.0800	0.0676		mg/L		85	46 - 110	
Surrogate	%Recovery	LCS		Limits	D	%Rec	Limits	%Rec.
		Spike	MB					
2-Fluorobiphenyl (Surr)	83			30 - 110				
2-Fluorophenol (Surr)	74			20 - 110				
Nitrobenzene-d5 (Surr)	85			28 - 110				
Phenol-d5 (Surr)	62			21 - 110				
Terphenyl-d14 (Surr)	92			48 - 110				
2,4,6-Tribromophenol (Surr)	90			23 - 110				

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-202290/11-A

Matrix: Solid

Analysis Batch: 202478

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 202290

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,4-Dichlorobenzene	0.0040	U	0.0040	0.00034	mg/L				1
2,4-Dinitrotoluene	0.0040	U	0.0040	0.00025	mg/L				1
Hexachlorobenzene	0.00080	U	0.00080	0.000085	mg/L				1
Hexachlorobutadiene	0.0040	U	0.0040	0.00027	mg/L				1
Hexachloroethane	0.0040	U	0.0040	0.00019	mg/L				1
2-Methylphenol	0.0040	U	0.0040	0.00017	mg/L				1
3 & 4 Methylphenol	0.0040	U	0.0040	0.00080	mg/L				1
Nitrobenzene	0.0040	U	0.0040	0.000040	mg/L				1
Pentachlorophenol	0.016	U	0.016	0.00027	mg/L				1
Pyridine	0.0040	U	0.0040	0.00035	mg/L				1
2,4,5-Trichlorophenol	0.0040	U	0.0040	0.00030	mg/L				1
2,4,6-Trichlorophenol	0.0040	U	0.0040	0.00024	mg/L				1

MB MB

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	72		30 - 110			1
2-Fluorophenol (Surr)	71		20 - 110			1
Nitrobenzene-d5 (Surr)	73		28 - 110			1
Phenol-d5 (Surr)	62		21 - 110			1
Terphenyl-d14 (Surr)	83		48 - 110			1
2,4,6-Tribromophenol (Surr)	78		23 - 110			1

Lab Sample ID: LCS 240-202290/12-A

Matrix: Solid

Analysis Batch: 202478

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 202290

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
	Added	Result							
1,4-Dichlorobenzene	0.0800	0.0572			mg/L		71	52 - 110	
2,4-Dinitrotoluene	0.0800	0.0648			mg/L		81	54 - 110	
Hexachlorobenzene	0.0800	0.0576			mg/L		72	50 - 110	
Hexachlorobutadiene	0.0800	0.0566			mg/L		71	34 - 110	
Hexachloroethane	0.0800	0.0601			mg/L		75	41 - 110	
2-Methylphenol	0.0800	0.0655			mg/L		82	44 - 111	
3 & 4 Methylphenol	0.0800	0.0570			mg/L		71	48 - 110	
Nitrobenzene	0.0800	0.0593			mg/L		74	40 - 110	
Pentachlorophenol	0.160	0.118			mg/L		74	12 - 110	
Pyridine	0.0800	0.0512			mg/L		64	30 - 110	
2,4,5-Trichlorophenol	0.0800	0.0572			mg/L		72	51 - 110	
2,4,6-Trichlorophenol	0.0800	0.0607			mg/L		76	46 - 110	

LCS LCS

Surrogate	LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	74		30 - 110
2-Fluorophenol (Surr)	70		20 - 110
Nitrobenzene-d5 (Surr)	80		28 - 110
Phenol-d5 (Surr)	61		21 - 110
Terphenyl-d14 (Surr)	81		48 - 110
2,4,6-Tribromophenol (Surr)	84		23 - 110

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 240-201642/2-A

Matrix: Water

Analysis Batch: 201889

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201642

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	0.50	U	0.50	0.0029	mg/L				1
Barium	10	U	10	0.0010	mg/L				1
Cadmium	0.10	U	0.10	0.00014	mg/L				1
Chromium	0.50	U	0.50	0.00055	mg/L				1
Lead	0.50	U	0.50	0.0019	mg/L				1
Selenium	0.25	U	0.25	0.0040	mg/L				1
Silver	0.50	U	0.50	0.00092	mg/L				1

Lab Sample ID: LCS 240-201642/3-A

Matrix: Water

Analysis Batch: 201889

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 201642

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
	Added							
Arsenic	2.00		2.07		mg/L	103	50 - 150	
Barium	2.00		1.96	J	mg/L	98	50 - 150	
Cadmium	0.0500		0.0521	J	mg/L	104	50 - 150	
Chromium	0.200		0.199	J	mg/L	99	50 - 150	
Lead	0.500		0.487	J	mg/L	97	50 - 150	
Selenium	2.00		2.11		mg/L	106	50 - 150	
Silver	0.0500		0.0504	J	mg/L	101	50 - 150	

Lab Sample ID: MB 240-202258/2-A

Matrix: Solid

Analysis Batch: 202498

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 202258

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	0.50	U	0.50	0.0029	mg/L				1
Barium	10	U	10	0.0010	mg/L				1
Cadmium	0.10	U	0.10	0.00014	mg/L				1
Chromium	0.50	U	0.50	0.00055	mg/L				1
Lead	0.50	U	0.50	0.0019	mg/L				1
Selenium	0.25	U	0.25	0.0040	mg/L				1
Silver	0.000951	J	0.50	0.00092	mg/L				1

Lab Sample ID: LCS 240-202258/3-A

Matrix: Solid

Analysis Batch: 202498

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 202258

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
	Added							
Arsenic	2.00		2.08		mg/L	104	50 - 150	
Barium	2.00		1.86	J	mg/L	93	50 - 150	
Cadmium	0.0500		0.0500	J	mg/L	100	50 - 150	
Chromium	0.200		0.194	J	mg/L	97	50 - 150	
Lead	0.500		0.448	J	mg/L	90	50 - 150	
Selenium	2.00		2.11		mg/L	106	50 - 150	
Silver	0.0500		0.0542	J	mg/L	108	50 - 150	

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LB 240-201518/1-B

Matrix: Water

Analysis Batch: 201889

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 201642

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.50	U	0.50	0.0029	mg/L				1
Barium	10	U	10	0.0010	mg/L	10/13/15 11:42	10/14/15 11:16		1
Cadmium	0.10	U	0.10	0.00014	mg/L	10/13/15 11:42	10/14/15 11:16		1
Chromium	0.00110	J	0.50	0.00055	mg/L	10/13/15 11:42	10/14/15 11:16		1
Lead	0.50	U	0.50	0.0019	mg/L	10/13/15 11:42	10/14/15 11:16		1
Selenium	0.25	U	0.25	0.0040	mg/L	10/13/15 11:42	10/14/15 11:16		1
Silver	0.50	U	0.50	0.00092	mg/L	10/13/15 11:42	10/14/15 11:16		1

Lab Sample ID: LB 240-202152/1-B

Matrix: Solid

Analysis Batch: 202498

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 202258

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00477	J	0.50	0.0029	mg/L				1
Barium	10	U	10	0.0010	mg/L	10/16/15 10:35	10/18/15 14:29		1
Cadmium	0.10	U	0.10	0.00014	mg/L	10/16/15 10:35	10/18/15 14:29		1
Chromium	0.000689	J	0.50	0.00055	mg/L	10/16/15 10:35	10/18/15 14:29		1
Lead	0.50	U	0.50	0.0019	mg/L	10/16/15 10:35	10/18/15 14:29		1
Selenium	0.25	U	0.25	0.0040	mg/L	10/16/15 10:35	10/18/15 14:29		1
Silver	0.50	U	0.50	0.00092	mg/L	10/16/15 10:35	10/18/15 14:29		1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-201643/2-A

Matrix: Water

Analysis Batch: 201918

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201643

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020	0.000090	mg/L				1

Lab Sample ID: LCS 240-201643/3-A

Matrix: Water

Analysis Batch: 201918

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 201643

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00500	0.00484		mg/L		97	80 - 120

Lab Sample ID: MB 240-202262/2-A

Matrix: Solid

Analysis Batch: 203012

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 202262

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020	0.000090	mg/L				1

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 240-202262/3-A

Matrix: Solid

Analysis Batch: 203012

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 202262

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Mercury	0.00500	0.00516		mg/L		103	80 - 120

Lab Sample ID: LB 240-201518/1-C

Matrix: Water

Analysis Batch: 201918

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 201643

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020	0.000090	mg/L		10/13/15 14:00	10/14/15 11:47	1

Lab Sample ID: LB 240-202152/1-C

Matrix: Solid

Analysis Batch: 203012

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 202262

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020	0.000090	mg/L		10/16/15 14:00	10/21/15 16:53	1

Method: 1010 - Ignitability, Pensky-Martens Closed-Cup Method

Lab Sample ID: LCS 240-201798/1

Matrix: Water

Analysis Batch: 201798

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Flashpoint	81.0	81.00		Degrees F		100	97 - 103

Lab Sample ID: LCS 240-201798/2

Matrix: Water

Analysis Batch: 201798

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Flashpoint	81.0	79.00		Degrees F		98	97 - 103

Lab Sample ID: LCS 240-201798/3

Matrix: Water

Analysis Batch: 201798

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Flashpoint	81.0	79.00		Degrees F		98	97 - 103

Lab Sample ID: LCS 240-201798/4

Matrix: Solid

Analysis Batch: 201798

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Flashpoint	81.0	79.00		Degrees F		98	97 - 103

TestAmerica Canton

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Method: 9040C - pH

Lab Sample ID: LCS 240-201310/2

Matrix: Water

Analysis Batch: 201310

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Corrosivity	6.15	6.190		SU		101	97 - 103	
pH	6.15	6.190		SU		101	97 - 103	

Method: 9045C - pH

Lab Sample ID: LCS 240-201706/2

Matrix: Solid

Analysis Batch: 201706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Corrosivity	6.15	6.110		SU		99	97 - 103	
pH	6.15	6.110		SU		99	97 - 103	

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

GC/MS VOA

Leach Batch: 201379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-34	DRUM DECON/PURGE WATER	TCLP	Water	1311	
LB 240-201379/1-A MB	Method Blank	TCLP	Water	1311	

Analysis Batch: 201734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-34	DRUM DECON/PURGE WATER	TCLP	Water	8260B	
LB 240-201379/1-A MB	Method Blank	TCLP	Water	8260B	201379
LCS 240-201734/20	Lab Control Sample	Total/NA	Water	8260B	

Leach Batch: 202030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-33	DRUM SOIL CUTTING	TCLP	Solid	1311	
LB 240-202030/1-A MB	Method Blank	TCLP	Solid	1311	

Analysis Batch: 202139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-33	DRUM SOIL CUTTING	TCLP	Solid	8260B	
LB 240-202030/1-A MB	Method Blank	TCLP	Solid	8260B	202030
LCS 240-202139/9	Lab Control Sample	Total/NA	Solid	8260B	

GC/MS Semi VOA

Leach Batch: 201518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-34	DRUM DECON/PURGE WATER	TCLP	Water	1311	

Prep Batch: 201625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-34	DRUM DECON/PURGE WATER	TCLP	Water	3510C	
LCS 240-201625/18-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-201625/17-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 201807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-201625/18-A	Lab Control Sample	Total/NA	Water	8270C	
MB 240-201625/17-A	Method Blank	Total/NA	Water	8270C	201625

Analysis Batch: 202045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-34	DRUM DECON/PURGE WATER	TCLP	Water	8270C	201625

Leach Batch: 202152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-33	DRUM SOIL CUTTING	TCLP	Solid	1311	

Prep Batch: 202290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-33	DRUM SOIL CUTTING	TCLP	Solid	3510C	
LCS 240-202290/12-A	Lab Control Sample	Total/NA	Solid	3510C	
MB 240-202290/11-A	Method Blank	Total/NA	Solid	3510C	

TestAmerica Canton

QC Association Summary

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

GC/MS Semi VOA (Continued)

Analysis Batch: 202478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-33	DRUM SOIL CUTTING	TCLP	Solid	8270C	202290
LCS 240-202290/12-A	Lab Control Sample	Total/NA	Solid	8270C	202290
MB 240-202290/11-A	Method Blank	Total/NA	Solid	8270C	202290

Metals

Leach Batch: 201518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-34	DRUM DECON/PURGE WATER	TCLP	Water	1311	8
LB 240-201518/1-B	Method Blank	TCLP	Water	1311	9
LB 240-201518/1-C	Method Blank	TCLP	Water	1311	10

Prep Batch: 201642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-34	DRUM DECON/PURGE WATER	TCLP	Water	3010A	11
LB 240-201518/1-B	Method Blank	TCLP	Water	3010A	12
LCS 240-201642/3-A	Lab Control Sample	Total/NA	Water	3010A	13
MB 240-201642/2-A	Method Blank	Total/NA	Water	3010A	13

Prep Batch: 201643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-34	DRUM DECON/PURGE WATER	TCLP	Water	7470A	201518
LB 240-201518/1-C	Method Blank	TCLP	Water	7470A	201518
LCS 240-201643/3-A	Lab Control Sample	Total/NA	Water	7470A	
MB 240-201643/2-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 201889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-34	DRUM DECON/PURGE WATER	TCLP	Water	6010B	201642
LB 240-201518/1-B	Method Blank	TCLP	Water	6010B	201642
LCS 240-201642/3-A	Lab Control Sample	Total/NA	Water	6010B	201642
MB 240-201642/2-A	Method Blank	Total/NA	Water	6010B	201642

Analysis Batch: 201918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-34	DRUM DECON/PURGE WATER	TCLP	Water	7470A	201643
LB 240-201518/1-C	Method Blank	TCLP	Water	7470A	201643
LCS 240-201643/3-A	Lab Control Sample	Total/NA	Water	7470A	201643
MB 240-201643/2-A	Method Blank	Total/NA	Water	7470A	201643

Leach Batch: 202152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-33	DRUM SOIL CUTTING	TCLP	Solid	1311	
LB 240-202152/1-B	Method Blank	TCLP	Solid	1311	
LB 240-202152/1-C	Method Blank	TCLP	Solid	1311	

Prep Batch: 202258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-33	DRUM SOIL CUTTING	TCLP	Solid	3010A	202152
LB 240-202152/1-B	Method Blank	TCLP	Solid	3010A	202152

TestAmerica Canton

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Metals (Continued)

Prep Batch: 202258 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-202258/3-A	Lab Control Sample	Total/NA	Solid	3010A	
MB 240-202258/2-A	Method Blank	Total/NA	Solid	3010A	

Prep Batch: 202262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-33	DRUM SOIL CUTTING	TCLP	Solid	7470A	202152
LB 240-202152/1-C	Method Blank	TCLP	Solid	7470A	202152
LCS 240-202262/3-A	Lab Control Sample	Total/NA	Solid	7470A	
MB 240-202262/2-A	Method Blank	Total/NA	Solid	7470A	

Analysis Batch: 202498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-33	DRUM SOIL CUTTING	TCLP	Solid	6010B	202258
LB 240-202152/1-B	Method Blank	TCLP	Solid	6010B	202258
LCS 240-202258/3-A	Lab Control Sample	Total/NA	Solid	6010B	202258
MB 240-202258/2-A	Method Blank	Total/NA	Solid	6010B	202258

Analysis Batch: 203012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-33	DRUM SOIL CUTTING	TCLP	Solid	7470A	202262
LB 240-202152/1-C	Method Blank	TCLP	Solid	7470A	202262
LCS 240-202262/3-A	Lab Control Sample	Total/NA	Solid	7470A	202262
MB 240-202262/2-A	Method Blank	Total/NA	Solid	7470A	202262

General Chemistry

Analysis Batch: 201310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-34	DRUM DECON/PURGE WATER	Total/NA	Water	9040C	
LCS 240-201310/2	Lab Control Sample	Total/NA	Water	9040C	

Analysis Batch: 201706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-33	DRUM SOIL CUTTING	Total/NA	Solid	9045C	
LCS 240-201706/2	Lab Control Sample	Total/NA	Solid	9045C	

Analysis Batch: 201798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56464-33	DRUM SOIL CUTTING	Total/NA	Solid	1010	
240-56464-34	DRUM DECON/PURGE WATER	Total/NA	Water	1010	
LCS 240-201798/1	Lab Control Sample	Total/NA	Water	1010	
LCS 240-201798/2	Lab Control Sample	Total/NA	Water	1010	
LCS 240-201798/3	Lab Control Sample	Total/NA	Water	1010	
LCS 240-201798/4	Lab Control Sample	Total/NA	Solid	1010	

Lab Chronicle

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Client Sample ID: DRUM SOIL CUTTING

Date Collected: 10/09/15 13:15

Date Received: 10/10/15 09:45

Lab Sample ID: 240-56464-33

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			202030	10/14/15 19:05	DRJ	TAL CAN
TCLP	Analysis	8260B		1	202139	10/15/15 23:35	TJL1	TAL CAN
TCLP	Leach	1311			202152	10/15/15 16:50	DRJ	TAL CAN
TCLP	Prep	3510C			202290	10/16/15 12:04	JDR	TAL CAN
TCLP	Analysis	8270C		1	202478	10/19/15 14:19	JMG	TAL CAN
TCLP	Leach	1311			202152	10/15/15 16:50	DRJ	TAL CAN
TCLP	Prep	3010A			202258	10/16/15 10:35	DEE	TAL CAN
TCLP	Analysis	6010B		1	202498	10/19/15 02:35	KLC	TAL CAN
TCLP	Leach	1311			202152	10/15/15 16:50	DRJ	TAL CAN
TCLP	Prep	7470A			202262	10/16/15 14:00	DEE	TAL CAN
TCLP	Analysis	7470A		1	203012	10/21/15 17:56	WAL	TAL CAN
Total/NA	Analysis	1010		1	201798	10/14/15 15:13	DTN	TAL CAN
Total/NA	Analysis	9045C		1	201706	10/13/15 15:20	BLW	TAL CAN

Client Sample ID: DRUM DECON/PURGE WATER

Date Collected: 10/09/15 13:25

Date Received: 10/10/15 09:45

Lab Sample ID: 240-56464-34

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			201379	10/11/15 14:45	KAS1	TAL CAN
TCLP	Analysis	8260B		1	201734	10/14/15 03:45	TJL1	TAL CAN
TCLP	Leach	1311			201518	10/12/15 17:30	DRJ	TAL CAN
TCLP	Prep	3510C			201625	10/13/15 11:17	CS	TAL CAN
TCLP	Analysis	8270C		1	202045	10/15/15 17:00	JMG	TAL CAN
TCLP	Leach	1311			201518	10/12/15 17:30	DRJ	TAL CAN
TCLP	Prep	3010A			201642	10/13/15 11:43	WKD	TAL CAN
TCLP	Analysis	6010B		1	201889	10/14/15 16:54	KLC	TAL CAN
TCLP	Leach	1311			201518	10/12/15 17:30	DRJ	TAL CAN
TCLP	Prep	7470A			201643	10/13/15 14:00	WKD	TAL CAN
TCLP	Analysis	7470A		1	201918	10/14/15 12:34	WAL	TAL CAN
Total/NA	Analysis	1010		1	201798	10/14/15 10:20	DTN	TAL CAN
Total/NA	Analysis	9040C		1	201310	10/10/15 11:45	LCN	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TestAmerica Canton

Certification Summary

Client: ARCADIS U.S., Inc.

Project/Site: Grenada Manufacturing

TestAmerica Job ID: 240-56464-2

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAP	9	01144CA	06-30-14 *
California	State Program	9	2927	04-30-17
Connecticut	State Program	1	PH-0590	12-31-15
Illinois	NELAP	5	200004	07-31-16
Kansas	NELAP	7	E-10336	01-31-16 *
Kentucky (UST)	State Program	4	58	02-26-16
Kentucky (WW)	State Program	4	98016	12-31-15
L-A-B	DoD ELAP		L2315	07-18-16
Minnesota	NELAP	5	039-999-348	12-31-15
Nevada	State Program	9	OH-000482008A	07-31-16
New Jersey	NELAP	2	OH001	10-30-15 *
New York	NELAP	2	10975	03-31-16
Ohio VAP	State Program	5	CL0024	10-31-15 *
Oregon	NELAP	10	4062	02-23-16
Pennsylvania	NELAP	3	68-00340	08-31-16
Texas	NELAP	6	T104704517-15-5	08-31-16
USDA	Federal		P330-13-00319	11-26-16
Virginia	NELAP	3	460175	09-14-16
Washington	State Program	10	C971	01-12-16
West Virginia DEP	State Program	3	210	12-31-15
Wisconsin	State Program	5	999518190	08-31-16

* Certification renewal pending - certification considered valid.

TestAmerica Canton

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

**CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS**



240-56464 Chain of Custody

Chain of Custody Record

089276

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

TAL-8210 (07/13)

Regulatory Program: DW NPDES RCRA Other:

Client Contact	Project Manager: John E. L.	Site Contact: Greg Beck	Date: 2/2/13	COC No: 2 of 3 COCs
Company Name: Aegis	Lab Contact: Brooks J.	Carrier:		Sampler:
Address: 1032 Birch Avenue D.	Analysis Turnaround Time			For Lab Use Only:
City/State/Zip: Bldg 1032 Birch Ave D.	<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS			Walk-in Client: Lab Sampling:
Phone: 725-292-1051	TAT if different from Below			Job / SDG No.:
Fax:	<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days			
Project Name: General Manufacturing	1 day			
Site: Gen. Mfg.				
PO # L100 3387. Oct. 2004				
Sample Identification				
VAP-8(13)	Sample Date 10-28-13	Sample Time 1335	Sample Type (C=Comp, G=Grab) G	# of Cont. 5
VAP-8-bn(13-13)	4	1400	G	3 4
VAP-8-bn(20-31)	11	1440	G	6 7
VAP-8-bn(25-26)	10-28-13	1501	G	6 6
VAP-8-bn(30-31)	1	1507	G	3 3
VAP-8-bn(35-36)	11	1555	G	6 6
VAP-8-bn(40-41)	10-28-13	1636	G	6 6
VAP-8-bn(45-46)	4	1708	G	6 6
VAP-B bn(45-54)	4	1740	C	6 6
TB-06/10-08(15)	Over	6	C	6 6
VAP-7-bn(13-14)	10-09-13	0807	G	3 3
VAP-7-bn(13-14)	4	0841	G	3 3
Preservation Used: 1=Ice; 2=HCl; 3=H ₂ SO ₄ ; 4=HNO ₃ ; 5=NaOH; 6=Other				
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for: _____ Months <input type="checkbox"/> Return to Client				
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the comments section if the lab is to dispose of the sample. <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown				
Special Instructions/QC Requirements & Comments: Page 31 of 35				
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: Company: Brooks		Cooler Temp. (°C): Obsd: _____ Corrd: _____ Therm ID No.: _____
Relinquished by: <i>John Black</i>		Company: Company: Date/Time: 10/09/13 3:00		Received by: Company: Date/Time: _____
Relinquished by: <i>John Black</i>		Company: Company: Date/Time: _____		Received by: Company: Date/Time: _____
Relinquished by: <i>John Black</i>		Company: Company: Date/Time: 10/09/13 3:00		Received in Laboratory by: Company: Date/Time: 10/09/13 3:00
1 2 3 4 5 6 7 8 9 10 11 12 13 14				

Chain of Custody Record

089278

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

TAL-8210 (07/13)

Regulatory Program: DW NPDES RCRA other:

Client Contact	Project Manager: <u>J.W. ELLIS</u>	Site Contact: <u>George Cook</u>	Date: <u>Carrier:</u>
Company Name: <u>Arcadis</u>	Lab Contact:	COC No: <u>3</u> of <u>3</u> COCs	
Address: <u>10352 Prince America Dr.</u>	Sampler:		
City/State/Zip: <u>13073, Roanoke, VA 24014</u>	For Lab Use Only:		
Phone: <u>915-452-1800</u>	Walk-in Client:		
Fax: <u></u>	Lab Sampling:		
Project Name: <u>Granites Manufact.</u>	Job / SDG No.:		
Site: <u>Granite Mts</u>			
PO # <u>LAP0013307900780007</u>			
Sample Identification			
	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)
VAP-7-6w (15-16)	10/05/15	0930	G
VAP-7-6w (20-21)	11/06/15	1000	C
VAP-7-6w (25-26)	11/13/15	1030	C
VAP-7-6w (30-31)	10/29/15	1050	C
VAP-7-6w (35-36)	11/13/15	1130	C
VAP-7-6w (43-44)	11/15/15	1150	C
VAP-7-6w (48-49)	11/17/15	1200	C
TB07 (106514)	10/09/15	1210	C
Drum 501, C.H.A.N.Y.	10/09/15	1210	C
Drum 501/ Purple Wash	10/09/15	1220	C

Preservation Used: 1=Ice; 2=HCl; 3=H₂SO₄; 4=HNO₃; 5=NaOH; 6= Other

Comments Section if the lab is to dispose of the sample.

Possible Hazard Identification:

Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the

Comments Section if the lab is to dispose of the sample.

Non-Hazard Flammable Skin Irritant Poison B Unknown

Comments Section if the lab is to dispose of the sample.

Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.: <u>George Cook</u>	Cooler Temp. (°C): Obs'd: <u>10</u> Corr'd: <u>10</u> Therm ID No: <u>10</u>
Relinquished by: <u>George E. Cook</u>	Date/Time: <u>10/05/15 1030</u>	Received by: <u>John</u> Company: <u>TestAmerica</u>
Relinquished by: <u></u>	Date/Time: <u></u>	Received by: <u></u> Company: <u></u>
Relinquished by: <u></u>	Date/Time: <u></u>	Received in Laboratory by: <u>George</u> Company: <u>TestAmerica</u>

Preservation Used: 1=Ice; 2=HCl; 3=H₂SO₄; 4=HNO₃; 5=NaOH; 6= Other

Comments Section if the lab is to dispose of the sample.

Non-Hazard Flammable Skin Irritant Poison B Unknown

Comments Section if the lab is to dispose of the sample.

Return to Client Disposal by Lab Archive for _____ Months

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.: <u>George Cook</u>	Cooler Temp. (°C): Obs'd: <u>10</u> Corr'd: <u>10</u> Therm ID No: <u>10</u>
Relinquished by: <u>George E. Cook</u>	Date/Time: <u>10/05/15 1030</u>	Received by: <u>John</u> Company: <u>TestAmerica</u>
Relinquished by: <u></u>	Date/Time: <u></u>	Received by: <u></u> Company: <u></u>
Relinquished by: <u></u>	Date/Time: <u></u>	Received in Laboratory by: <u>George</u> Company: <u>TestAmerica</u>

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10/20/2015

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login #: 56464

Client <u>ARCADIS</u>	Site Name <u>Grenada</u>	Cooler unpacked by: <u>TestAmerica</u>
Cooler Received on <u>10/10/15</u>	Opened on <u>10/10/15</u>	
FedEx: 1 st Grd <input checked="" type="checkbox"/> Exp <input type="checkbox"/> UPS <input type="checkbox"/> FAS <input type="checkbox"/> Stetson <input type="checkbox"/> Client Drop Off <input type="checkbox"/> TestAmerica Courier <input type="checkbox"/> Other		

Receipt After-hours: Drop-off Date/Time	Storage Location
TestAmerica Cooler #	Foam Box Client Cooler Box Other <u>MFR</u>
Packing material used: <u>Bubble Wrap</u>	Foam Plastic Bag None Other _____
COOLANT: <u>Wet Ice</u>	Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +1.0 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C
IR GUN# 4 (CF +0.5 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C
IR GUN# 5 (CF +0.4 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C
IR GUN# 8 (CF -1.5 °C)	Observed Cooler Temp. _____ °C	Corrected Cooler Temp. _____ °C

See Multiple Cooler Form
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity seals

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC554612
12. Were VOAs on the COC? Yes No
13. Were air bubbles >6 mm in any VOA vials? Yes No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # Covered Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by:

Received Sample Dep-3 on 10/9/15 @ not on COC

Received only 3x40mL HCl vials for sample VAP-6-6W(12-13)

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
 Sample(s) _____ were received in a broken container.
 Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____

Temperature readings: _____

<u>Client Sample ID</u>	<u>Lab ID</u>	<u>Container Type</u>	<u>Container</u>	<u>Preservative</u>	<u>pH</u>	<u>Added (mls)</u>	<u>Lot #</u>
VAP-6-GW(12-13)	240-56464-F-3	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	_____
VAP-6-GW(15-16)	240-56464-F-4	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	5
VAP-6-GW(20-21)	240-56464-F-5	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	6
VAP-6-GW(25-26)	240-56464-F-6	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	7
VAP-6-GW(30-31)	240-56464-F-7	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	8
VAP-6-GW(30-35)	240-56464-F-8	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	9
VAP-6-GW(40-41)	240-56464-P-9	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	10
VAP-6-GW(40-41)	240-56464-Q-9	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	11
VAP-6-GW(40-41)	240-56464-R-9	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	12
VAP-6-GW(45-46)	240-56464-F-10	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	13
VAP-6-GW(49-50)	240-56464-F-11	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	14
DUP-02(100815)	240-56464-F-12	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	15
VAP-8-GW(18-19)	240-56464-F-14	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	16
VAP-8-GW(20-21)	240-56464-F-15	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	17
VAP-8-GW(25-26)	240-56464-F-16	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	18
VAP-8-GW(30-31)	240-56464-F-17	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	19
VAP-8-GW(35-36)	240-56464-F-18	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	20
VAP-8-GW(40-41)	240-56464-F-19	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	21
VAP-8-GW(45-46)	240-56464-F-20	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	22
VAP-8-GW(49-50)	240-56464-F-21	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	23
VAP-7-GW(13-14)	240-56464-F-24	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	24
VAP-7-GW(15-16)	240-56464-F-25	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	25
VAP-7-GW(20-21)	240-56464-F-26	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	26
VAP-7-GW(25-26)	240-56464-F-27	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	27
VAP-7-GW(30-31)	240-56464-P-28	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	28
VAP-7-GW(30-31)	240-56464-Q-28	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	29
VAP-7-GW(30-31)	240-56464-R-28	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	30
VAP-7-GW(35-36)	240-56464-F-29	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	31
VAP-7-GW(43-44)	240-56464-F-30	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	32
VAP-7-GW(48-49)	240-56464-F-31	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	33
DUP-3	240-56464-F-35	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____	34